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Start-up intentions of potential entrepreneurs – the contribution of hope to success

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ABSTRACT

In line with Ajzen's theory of planned behaviour (1991), an individual's behaviour is a product of intentions based on attitude toward behaviour, subjective norms, and perceived control. It seems important to seek factors that underlie business intentions and that go beyond Ajzen's theory when adapting the model to business-related behaviour. This study aims to determine the predictive value of Snyder's hope of success for start-up intentions. The study was conducted at the University of Finance and Management in Warsaw (Poland) with 347 students of various majors using the *Start-up Intentions Questionnaire (SulQ)*, the *Hope Scale (HS)*, and the *Multidimensional Personal and Business Data Sheet*. Potential entrepreneurs displayed stronger start-up intentions than people who did not plan to start a business. Positive correlations were found between start-up intentions and the scores in the *HS* subscales. The scores in *Pathways* were the only variables in the regression model that were significant predictors of start-up intentions. The other independent variables – the score for *Agency*, the total *HS* score, age, and sex – did not achieve the required significance level. Deepening one's convictions, especially about one's skills and persistence in solving problems, may be considered one of the factors underlying start-up intentions.

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1. Introduction

During the process of writing another article on entrepreneurship, we became aware of the popularity of the topic. If nothing else, the number of Google Scholar search results testifies to that prevalence; the term 'entrepreneurship' generates approximately 970,000 results (retrieved on 14/08/2015). The number of new enterprises established is impressive as well: in Poland alone, approximately 400,000–500,000 new companies are established every year (Zadura-Lichota & Tarnawa, 2014, p. 20). Undoubtedly, we live in a period of intense entrepreneurship.

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The phenomenon of intense entrepreneurship and the popularity of the topic does not, however, necessitate another publication on this issue. During the process of designing this study, we needed to answer the three questions discussed below. The answers have helped us to realise how important it is to continue research on entrepreneurship, including investigation into business intentions.

The first question we needed to address was the following: *Why should we design and conduct another study of business activity?* We considered four groups of arguments, which we present as consequences of an extensive review of the relevant literature.

1. High and unrelenting unemployment rates. Between 2007 and 2014, the unemployment rate was approximately 12% in Poland alone (Central Statistical Office [GUS], 2015). *Entrepreneurship may constitute a remedy to protect society against unemployment by means of self-employment.*
2. The macro-social implications of entrepreneurship. The literature points to an array of benefits produced by effective entrepreneurship. Entrepreneurship may influence a country's economic growth, secure social unity, prevent social marginalisation (Dimitriadis, 2008, p. 84), create something new and valuable (Janasz, 2004, p. 18–24), or solve new problems in a creative way (Drucker, 1999, p. 58). *Entrepreneurship may generate economic growth through the technological development of a country, the implementation of innovation, and the enhancement of communication with other countries (e.g. through international business activity).*
3. Motives behind undertaking business activity. There is an array of non-monetary motives that serve a crucial role in making decisions on self-employment, such as self-realisation, independence, upholding tradition (Parker, 2004; Schumpeter, 1952; Wagner & Ziltener, 2008), the need for achievement, and social development possibilities (Verheul, Thurik, Hessels, & van der Zwan, 2010). *On the individual level, entrepreneurship may generate higher self-esteem and a more positive frame of mind by satisfying non-monetary needs, such as self-realisation or independence.*
4. Personality dispositions that enhance business activity. Numerous personality traits may be of crucial importance in the process of making a decision to self-employ and in the effective running of a business. These include initiative, activity, independence, innovativeness, determination to achieve goals (Dimitriadis, 2008, p. 86), need for achievement (McClelland, 1961), inherent alertness to market opportunities (Kirzner, 1973), effectiveness, purposefulness (Hostager, Neil, Decker, & Lorentz, 1998), assertiveness, engagement in work, efficiency, effectiveness (McClelland, 1987), the ability to identify market opportunities (Gilad, Kaish, & Ronen, 1989), a high level of emotional enthusiasm (Goss, 2008), flexibility (Brandstötter, 1997, p. 163), being ill-equipped to work in organisations (Kets de Vries, 1985), high extroversion, conscientiousness, openness to experience and low agreeableness, neuroticism (Engle, Mah, & Sadri, 1997; Zhao, Seibert, & Lumpkin, 2010), tolerance of ambiguity, an inner sense of control (Cools & Van den Broeck, 2008), tolerance of risk (Caird, 1991), and resourcefulness (Brandstötter, 1997, p. 162). *Entrepreneurship requires a potential businessperson to possess a wide range of personality traits, competences, and skills that may positively influence individual self-development.*

The second question we propose is as follows: *Is the use of students as a research sample a good choice?* We are aware that the number of publications in which students are examined is impressive. However, it is worth noting an important fact: the greatest proportion of potential entrepreneurs (i.e. people who plan to undertake their own business activity in the near future) is found among students. For instance, Polish students who plan to establish their own business immediately after graduation constitute the largest group among potential entrepreneurs (Bernat, Korpysa, & Kunasz, 2008).

Third, *is it worth studying business intentions, especially in light of the fact that the number of newly established enterprises is constantly growing?* When answering this question, it is a good idea to consider the Death Valley phenomenon. The Death Valley is the period of the first four years of activity that is particularly difficult for young and inexperienced businesspeople; only a small part of them will achieve actual success consisting of (at least) the survival of a company in this critical period. For instance, only three out of every four businesses in Poland survive their first year of operation (the rate was 76.6% in 2011) (Central Statistical Office [GUS], 2014). The survival rate declines remarkably in subsequent years; it decreases to 54% in the second year of operation and to 32% in the fifth year (Tarnawa & Zadura-Lichota, 2013). A high proportion of newly founded companies that fail may have an adverse impact on the business intentions of potential entrepreneurs because it implies a question: *If they have not succeeded, do I stand a chance?* A negative answer to this question may lead to postponement of the decision to self-employ or to the eventual abandonment of the idea altogether.

Finally, it is worth noting that every human behaviour (including business-related behaviour) is preceded by and related to a configuration of various factors. As indicated above, there may be multiple external or internal motives (Verheul et al., 2010), personality traits, and beliefs regarding oneself and the surrounding world. Hence, if intention is one of the variables that may generate business-related behaviour, it is an important task for researchers to search for the factors that influence it. If these factors (i.e. predictors of business intentions) are discovered and subsequently appropriately 'modified' (e.g. through academic courses, trainings, and internship programmes), this may exert a positive influence over beliefs on the establishment of one's own business and may translate into individuals undertaking business activity.

The present study adopts a 'fresh' approach to business intentions. We delineate the value of the hope of success as one of the predictors of business-related beliefs, understood in line with the theory of planned behaviour by Ajzen.

2. Literature review

Effective business behaviour (i.e. the activity of a person heading toward the commencement of his or her own business and running it effectively) produces so many benefits (Brzeziński, 2007, p. 21; Dimitriadis, 2008, p. 84; Drucker, 1999, p. 58; Janasz, 2004, p. 18–24) that seeking the factors that trigger or at least facilitate the undertaking of business activity has become an important research area. This understanding has led to the development of an array of theories that may be classified into three groups to address the complexity of human behaviour.

The first group of theories reduces the multifacetedness of the factors underlying behaviour to a simple dichotomisation of motives, the so-called drive theory and incentive theory

(Carsrud & Brännback, 2009), or to two groups of factors adequate for those theories: pull and push factors (Verheul et al., 2010). In other words, in line with the drive theory (pull factors), people make a decision to undertake business activity based on internal motives, such as self-realisation (Staniewski, 2009) or the need to achieve (Verheul et al., 2010). Alternately, in line with the incentive theory (push factors), people are driven to act by external factors, such as income, prestige (Fayolle, Liñán, & Moriano, 2014), risk of unemployment, family pressure (Verheul et al., 2010), and the lack of interesting offers or job positions (Bernat et al., 2008; Czyżewska et al., 2009).

The second approach attempts to account for the variance of human behaviour with the use of internal personality dispositions. These theories test the predictive value of various single personality traits for business activity (Brandstötter, 1997, p. 162; Cools & Van den Broeck, 2008; Crant, 1996; D'Intino, Goldsby, Houghton, & Neck, 2007; Ong & Ismail, 2008; Rauch & Frese, 2007; Timmons, Smollen, & Dingee, 1985). An analysis of research results within the framework of the 'personality' approach allows us to draw the conclusion that although individual personality traits are related to behaviour (including business-related behaviour), the act of undertaking activity is more likely to be generated by a certain configuration of personality dispositions (Engle et al., 1997; Furnham & Fudge, 2008; Schmitt-Rodermund, 2004, 2007; Schmitt-Rodermund & Vondracek, 2002; Zhao & Seibert, 2006; Zhao et al., 2010) that differs depending on the nature of a given behaviour. To put it differently, it seems that each group of behaviours may be triggered by a different configuration of traits, although the configurations do not constitute disjoint categories (i.e. a given personality disposition may be included in more than one category), which makes it difficult to speak of a comprehensive and complete set of configurations. This is confirmed by surveys that have demonstrated that the effective management of a business (operationalised with four indicators: maintenance of liquidity, level of competitiveness, evaluation of chances for future business development, and evaluation of the company's innovativeness) is related to a configuration of four personality dispositions: emotional stability, need for achievement, innovativeness, and self-efficacy. The same study showed that extroversion was associated with none of the indicators of the functioning of a company. This finding is interesting because extroversion is considered one of the most important personality dispositions for business activity in the literature (Baron, 2002; Costa, McCrae, & Holland, 1984). One explanation for this finding might be that, in this study, only four aspects of the functioning of a company were studied, and extroversion might be related to other facets of this multidimensional construct (Staniewski, Janowski, & Awruk, 2016).

Undoubtedly, this fact makes it more complicated to account for behaviour with personality traits. Moreover, as rightly noted by Ajzen (1991), it appears that personality traits (as is the case with attitudes as well) only create an indirect impact on behaviour by influencing the factors that are more closely associated with a given behaviour. The adoption of such an approach has made it possible to develop the cognitive theory of self-regulation in the prediction of behaviour.

The cognitive theory of self-regulation is represented by the theory of planned behaviour (Ajzen, 1991), which is an extension of the theory of reasoned action (Ajzen, 1988; Fishbein & Ajzen, 1975). This theory advocates that the factor that accounts for behaviour is a given person's behavioural intention to undertake a certain activity. Thus, intention, as a motivating factor, determines the level of involvement and effort of performing a given

act. The intensity of behavioural intention determines the probability of the emergence of certain volitional behaviour (Ajzen, 1991).

In Ajzen's theory of planned behaviour, intention is a product of interaction among attitudes toward specific behaviour, subjective norms, and perceived control. Attitudes toward behaviour determine how favourably or unfavourably a person will assess a specific behaviour. In other words, these attitudes may be reduced to a simple product of the power of conviction concerning a given behaviour and the value of this conviction. Subjective norms, in contrast, are the social pressure to become involved or to avoid being involved in a given behaviour. Perceived control determines the degree to which an individual subjectively perceives a given situation as a controlled one (thus, it is not actual control exercised by the person). The sense of control is shaped by previous experiences and the anticipation of obstacles that might be encountered in the future. Interestingly, perceived control may produce a dual impact on behaviour – a direct or an indirect one – by influencing intentions.

The theory of planned behaviour has been widely used to account for various intentions, such as parental intentions (Mynarska, 2012), positive interventions (Kaczmarek & Drażkowski, 2014), entrepreneurial intentions (van Gelderen et al., 2008) and behaviour, such as casting a vote in presidential elections, having an abortion, or taking contraceptive pills (Ajzen, 1988).

In the present article, we assumed – based on Ajzen's theory of planned behaviour – that business-related behaviour (e.g. establishing one's own business) is dependent on start-up intentions, seen as the degree of involvement and effort put into starting one's own company. Following Ajzen's theory (1991) even further, we assumed that an array of factors underlies intention and that these factors may have a direct influence on business intention and an indirect influence on business-related behaviour. For instance, the relevant literature notes that of these factors, the following play a significant role: the need for achievement, risk-taking propensity, self-efficacy, values, students' exposure to role models, various entrepreneurial experiences, perception of social networks (Chang, 2013), self-efficacy, entrepreneurial participation (Chung & Yang, 2013), family entrepreneurial role models (Holienka, Mrva, & Marcin, 2013), social norms, controlled behaviour, short-term risk-taking preference (Zhang, Wang, & Owen, 2015), convictions (Rasli, Khan, Malekifar, & Jabeen, 2013), goal setting, goal commitment, entrepreneurial self-efficacy (Erikson, 1999), attitude toward start-ups, subjective norms, and perceived behavioural control (Ajzen, 1991; Liñán & Chen, 2009).

The present study focuses on expanding the configuration of factors that the literature cites as predictors of business intentions by determining the predictive value of Snyder's hope of success. Hence, we designed this study by basing it on an attempt to answer the following research questions:

- (1) *Does hope of success, as defined by Snyder, hold predictive value for start-up intentions; and*
- (2) *what is its role in accounting for variance in start-up intentions?*

The relevant literature offers a dual understanding of the notion of hope: basic hope as proposed by Erikson (1980, 1997) and the proposition of the hope of success as suggested by Snyder (Snyder, 1995; Snyder et al., 1991). Given the essence of this article, accepting Snyder's proposition for the understanding of hope appears to be a better choice.

Snyder defined hope of success as ‘a process of thinking about one’s goals, along with the motivation to move toward those goals (agency), and the ways to achieve those goals (pathways)’ (Snyder, 1995, p. 355). According to Snyder, hope of success is understood as a positive motivational and cognitive state rather than an emotional one (Snyder et al., 2002). Hope of success was also divided by Snyder into two interrelated beliefs (components of hope) that are reciprocal, additive, and positively related but not synonymous (Snyder et al., 2002). The first component is confidence in the possibility of achieving a goal (agentic thoughts). An individual who possesses this confidence is sure that he is able to initiate his endeavour toward the aim and thus to survive in spite of obstacles; that is, he is convinced of his willpower (efficiency). The energy caused by his relief becomes particularly important in moments of difficulty, obstacles, tiredness, and doubt because it helps to maintain the chosen way that leads toward the aim (Łaguna, Trzebiński, & Zięba, 2005, p. 7). The second belief is related to one’s self-apprehension as an able and smart individual who is therefore capable of inventing or learning one or more ways to achieve the aim (pathway thoughts). Thus, confidence in one’s knowledge and intellectual competence enables the execution of one’s will (the ability to find solutions) (Łaguna et al., 2005, p. 7).

There is a relative scarcity of research on the hope of success. Some of these studies examine the significance of the hope of success for sporting achievements (Curry, Snyder, Cook, Ruby, & Rehm, 1997), academic performance (higher hope was associated with a higher likelihood of graduating from college) (Snyder et al., 2002) and striving for perfection (Stoeber & Rambow, 2007). It has also been demonstrated that beliefs regarding one’s strong will and the ability to find solutions are linked to an entrepreneurial orientation in persons who perform managerial and executive functions in local governments and foundations (Porzak & Sagan, 2013). Hope of success may also determine better social adaptation, greater social competence, and a sense of social support (Łaguna et al., 2005). Furthermore, Krawczyk-Bryłka (2013) showed that hope of success determines not only the decision to establish one’s own company but is also a source of energy needed to run a company despite difficulties that the owner encounters. Another study revealed that positive psychological capital moderates the influence of Ajzen’s control over behaviour on the intention to undertake risky activity. This capital encompasses hope, optimism, resilience, and the sense of agency (Hayek, 2012; Krawczyk-Bryłka, 2013).

Based on Ajzen’s theory of planned behaviour (1991) and the results obtained by Hayek (2012) with regard to the moderating influence of hope on Ajzen’s control over behaviour, we established the aim of this study as verification of the role that Snyder’s hope of success plays in accounting for the variance in start-up intentions.

3. Methodology

3.1. Study procedure

This cross-sectional study was conducted in March 2013 at the University of Finance and Management in Warsaw (Poland). The purpose and the subject of this study were known to all participants. To guarantee the sincerity of the answers, the research was completely anonymous.

3.2. Participants

The study was conducted in three stages. The first stage consisted of surveying 422 students of various academic majors (Psychology, Management, Banking and Finance, Political and Computer Science). However, 47 questionnaire sets needed to be excluded from subsequent analyses due to incompleteness of the provided answers.

During the second stage, the research sample comprised 375 people, but 28 (people who declared in the first stage that they already had their own business) were excluded from further analyses.

Eventually, the group under examination was composed of 347 people: 220 (63.4%) women and 127 (36.6%) men. There were 280 (80.7%) people under the age of 25 in the sample; the number of those aged between 26 and 35 was 46 (13.3%), and 21 (6.1%) people were between 26- and 45-years-old. The majority of the participants of the study (64.6%) were residents of large cities (with populations of more than 50,000). The remaining persons lived in towns with populations below 50,000 (23.6%) and in the country (11.8%). Of the people under examination, Management was studied by 115 (33.1%) persons, 78 (22.5%) participants studied Psychology, 66 (19%) studied Computer Science, 50 (14.4%) studied Banking and Finance, and 38 (11%) studied Political Science. Of all the participants, 199 (53.1%) people had a plan to establish their own business in the near future, and 148 (39.4%) declared that they had no such plan.

3.3. Methods

The study made use of three tools: *the Start-up Intentions Questionnaire (SuIQ)*, *the Hope Scale (HS)*, and the *Multidimensional Personal and Business Data Sheet*.

The SuIQ is a 23-item tool designed by Staniewski and Awruk that serves to measure start-up intentions. The test items on the questionnaire are based on Ajzen's theory of planned behaviour, but they are formulated in such a way that they refer strictly to the intention to display business-related behaviour.

A pilot study using the *SuIQ* was conducted in 2012 in two stages:

- (1) During the first stage, a 26-item version of the questionnaire was assessed in terms of the clarity of the test items. The assessment was performed by 100 people on a 5-point scale from 1 – *absolutely unclear* to 5 – *absolutely clear*. If the arithmetic mean for a test item was lower than 4, it was removed from the questionnaire. Only one item of the questionnaire scored below the arithmetic mean of 4.
- (2) During the second stage, a pilot study with a 25-item version of the questionnaire was conducted with a group of 238 people. At this stage, two items were removed from the questionnaire because their discriminative power (calculated as a coefficient of the correlation of a given item with the total score in the scale adjusted by the removal of a given item from the score) was relatively small (below 0.2).

The questionnaire was composed of 4 subscales.

- (1) *Business Involvement*, which serves to evaluate plans concerning the act of establishing one's own business and the potential level of involvement in running it (six test items, e.g. *'I have repeatedly considered starting my own business'*, *'I am able to devote my time to running my own company even at the cost of leisure time'*).

- (2) *Business Attitudes*, which served to evaluate the attitude toward the idea of running one's own company (five test items, e.g. 'I believe it is a very good idea to start one's own business').
- (3) *Pressure*, which was used for the evaluation of the level of pressure placed on starting one's own business by the closest social environment (six test items, e.g. 'My family encourages me to run my own business').
- (4) *Control*, which served to evaluate beliefs regarding one's competences as an owner of a business (six test items, e.g. 'I believe that the success of a business is predominantly dependent on the person who runs it'; 'I am convinced that I possess the knowledge and skills necessary to effectively run a company').

The task of a person under examination is to voice their opinion on each statement by choosing from among five possible answers (from 1 = *definitely not true* to 5 = *definitely true*). The general score in the questionnaire is calculated by summing all the results obtained for each of the 23 items. However, in the case of four test items, the scale needed to be reversed. The general score ranges from 23 to 115 points. It is also possible to calculate the results for each subscale separately. These results are calculated similarly to the way the general score is counted, by summing the points for each test item that belongs to a given subscale. The results range from 5 to 25 for the subscale *Business Attitudes* and from 6 to 30 points for the subscales *Involvement*, *Pressure*, and *Control*. Higher scores in the subscales indicate greater intensification of the adequate construct (e.g. high scores in the subscale *Pressure* suggest that there is considerable insistence from the surrounding environment). Likewise, higher total scores point to a greater level of start-up intentions. In the present study, reliability estimated on the basis of *Cronbach's alpha* for the subscale *Involvement* was $\alpha = 0.95$; for the subscale *Attitudes*, it was $\alpha = 0.95$; for the subscale *Pressure*, it was $\alpha = 0.88$; and for the subscale *Control*, it was $\alpha = 0.88$. The reliability of the total score was $\alpha = 0.85$.

The *HS* is a self-report questionnaire developed by Snyder et al. (1991). The Polish adaptation of the instrument was performed by Łaguna et al. (2005). The measure consists of 12 items designed to evaluate hope of success and its two components: *Agency* (four items e.g. 'I energetically pursue my goals') and *Pathways* (four items e.g. 'My past experiences have prepared me well for my future'). The remaining four items serve as buffer items (e.g. 'I feel tired most of the time'). The responses are given on an 8-point scale anchored with *definitely false*, *mostly false*, *somewhat false*, *slightly false*, *slightly true*, *somewhat true*, *mostly true*, and *definitely true*. It is possible to examine the results at the subscale level or to combine two subscales to create a total hope score. The scores vary from 4 to 32 points for the *Agency* subscale and the *Pathways* subscale, and the total score varies from 8 to 64 points. A higher score indicates a higher intensification of hope of success and its two components. In the present study, the reliability coefficient (*Cronbach's alpha*) was 0.77 (*Pathways*), 0.77 (*Agency*) and 0.55 for the total score. In the present study, the reliability coefficient (*Cronbach's alpha*) was $\alpha = 0.75$ (*Pathways*), $\alpha = 0.75$ (*Agency*) and $\alpha = 0.83$ for the total score.

The *Multidimensional Personal and Business Data Sheet* is a 28-item tool to collect the following data:

- (1) personal (socio-demographic) data regarding, for example, age, sex, place of residence, and academic major;

- (2) business-related data regarding, for example, the running of one's own business or the fact that a close family member runs a company, the motives behind setting up a business, or traits useful in running a business.

All the test items are close-ended. The task of a person under examination is to voice their opinion on each statement by choosing one of the possible answers. Only questions concerning the sex, age, place of residence, and academic major of the participant were used in the present study. Additionally, two questions classified as business-related were employed in the study: the question asking about current business activity (*'Do you [presently] run your own business?'*) and the question regarding plans to establish one's own firm (*'Do you plan to start a business/would you like to start it?'*).

4. Results

Statistical analyses in this study were performed with the use of SPSS 22.0 for Windows. The results were estimated using the following statistics: frequency, the Mann-Whitney U test, Spearman's rho correlation, and regression analysis with the use of the ENTER method.

At the first stage of analysis, the intensity of start-up intentions was tested in the group planning to establish a business and the one without such plans separately. To this end, the variable *Start-up intentions*, operationalised as the general score of the *SuIQ* questionnaire, was dichotomised and served as the criterion for division (strong intentions vs weak intentions) based on the median. The results obtained in this way allowed us to conclude that in our study, the group of people who planned to start their own business, the proportion of people who displayed strong start-up intentions was greater (51.3%) than in the group of people who did not plan to start a company (44.6%) (Table 1).

Subsequently, we examined the differences in average scores obtained in the *SuIQ* and *HS* between the group that planned to start a business and the group that did not plan to start a business. To this end, the distributions of the results were first tested with descriptive statistics (i.e. arithmetic mean, standard deviation, skewness, kurtosis, minimum and maximum). The value obtained for kurtosis was slightly over 1 for the scores in the subscales of the *SuIQ Attitudes* and *Control*, for the subscale *Agency*, and for the general score in the *HS*. Hence, a decision was made to conduct a nonparametric Mann-Whitney U test.

The results indicate that as far as the average scores in the subscales *Business Involvement* and *Pressure* and the average total score in the *SuIQ* are concerned, people who plan to set up their own business are significantly different from people who do not have such plans. Specifically, people who plan to start a business declare higher average *Business Involvement*, *Pressure*, and *Start-up Intentions* (the total score in the *SuIQ*) in comparison to the group of people who do not have such plans. Moreover, people who plan to set up a business on

Table 1. Start-up intentions in a group of people planning and not planning to set up a business.

People planning their own business N=199				People not planning their own business N=148			
Strong business intentions		Weak business intentions		Strong business intentions		Weak business intentions	
N	%	N	%	N	%	N	%
102	51.3	97	48.7	66	44.6	82	55.4

Source: Authors' own investigation.

their own, on average, have a higher total score for the *HS* and for the subscale *Agency* than do people who do not plan to start their own business (Table 2).

At the third stage of analysis, relationships between start-up intentions and the hope of success were examined. To this end, the results of the *SuIQ* and *HS* were correlated with each other. Because the distributions of results for the subscales of the *SuIQ Attitudes* and *Control*, the total score for the *HS* and the subscale *Agency* were not close to normal (the value of kurtosis was over 1), we decided to perform Spearman's rho correlation. A number of significant relationships were revealed by the obtained results. *Business Involvement* was positively correlated with the total score on the *HS* and the scores on the subscales *Agency* and *Pathways*. *Business Attitudes* positively correlated with the total score on the *HS*. Correlations were found between *Pressure* and the scores on the subscale *Pathways*. Significant positive correlations were also revealed between the scores in the subscale *Control* and the scores on the subscales *Agency* and *Pathways* and the general score on the *HS*. Moreover, positive correlations were found between the general score on the *SuIQ* and the scores on the subscales *Agency* and *Pathways* and the general score for the *HS*. The values of Spearman's rho correlations are presented in Table 3.

To identify the variables that accounted for the variance in Start-up Intentions, we decided to conduct a series of regression analyses using the ENTER method by entering dependent variables one by one into the model: *start-up intentions* (operationalised as the score of the *SuIQ*) and the results of the subscales *Business involvement*, *Attitude*, and *Control*. The following were entered into the model as independent variables: the scores on the subscales *Agency* and *Pathways*, the general score on the *HS*, sex, and the age of the respondents. All of the models that underwent analysis reached the threshold of statistical significance. The variable 'score on the *HS*' was excluded from all of the regression models under analysis. The following correlations were revealed:

Table 2. Average scores on the *SuIQ* and *HS* questionnaires in groups of people who plan and do not plan to start their own business.

	Planning	Not planning	Z	P
	N=199	N=148		
	average rank	average rank		
Business Involvement	183.25	161.56	-1.99	.046
Business Attitudes	178.41	162.12	-1.51	.131
Pressure	163.10	139.94	-2.28	.023
Control	173.31	174.93	-0.15	.881
Total score of the <i>SuIQ</i>	183.22	161.60	-1.99	.047
Agency	185.73	158.23	-2.55	.011
Pathways	182.60	162.43	-1.86	.063
Total score of the <i>HS</i>	184.88	159.38	-2.35	.019

Source: Authors' own investigation.

Table 3. Spearman's rho correlations between the scores on the *SuIQ* and *HS*.

	Agency		Pathways		Total score of the <i>HS</i>	
	rho	P	rho	P	rho	P
Business Involvement	.22	.000	.30	.000	.23	.000
Business Attitudes	.09	.106	.11	.051	.12	.022
Pressure	.00	.945	.13	.026	.03	.601
Control	.14	.008	.21	.000	.12	.021
Total score of the <i>SuIQ</i>	.16	.002	.31	.000	.16	.002

Source: Authors' own investigation.

- (1) the scores on the subscale of the *HS Pathways* turned out to be a significant predictor of *Start-up Intentions* and accounted for 7% of the variance in scores on the *SuIQ*;
- (2) the scores on the subscale of the *HS Pathways* and the respondent's sex were found to be significant predictors of *Business Involvement* and accounted for 7% of the variance in the scores in this subscale;
- (3) the scores on the subscale of the *HS Pathways* as a predictor of the scores on the subscale *Attitudes* accounted for 4% of variance in the scores in this subscale;
- (4) 4% of the variance in the scores in the subscale *Control* was accounted for by the scores in the subscale *Pathways* and age.

The obtained values of the regression statistics for each model are presented in Table 4 and Table 5.

5. Discussion

Taking into account the macro- and micro-social as well as the individual implications of effective entrepreneurship (Brzeziński, 2007, p. 21; Dimitriadis, 2008, p. 84; Drucker, 1999,

Table 4. Proportional contribution of each independent variable to accounting for variance in scores in the *SuIQ*, *Business Involvement*, *Attitude*, and *Control*.

Summary of regression of the dependent variable: <i>Business Intentions</i>						
F=6.14 p=.000						
Independent variable	R	R ²	Adjusted R ²	Variation R ²	F of variation	Significance of F of variation
sex	.26	.07	.06	.07	6.14	.000
age						
Agency						
Pathways						
Summary of regression of the dependent variable: <i>Business Involvement</i>						
F=6.22 p=.000						
Independent variable	R	R ²	Adjusted R ²	Variation R ²	F of variation	Significance of F of variation
sex	.26	.07	.06	.07	6.22	.000
age						
Agency						
Pathways						
Summary of regression of the dependent variable: <i>Attitude</i>						
F=3.42 p=.009						
Independent variable	R	R ²	Adjusted R ²	Variation R ²	F of variation	Significance of F of variation
sex	.20	.04	.03	.04	3.42	.009
age						
Agency						
Pathways						
Summary of regression of the dependent variable: <i>Control</i>						
F=3.47 p=.009						
Independent variable	R	R ²	Adjusted R ²	Variation R ²	F of variation	Significance of F of variation
sex	.20	.04	.03	.04	3.47	.009
age						
Agency						
Pathways						

Source: Authors' own investigation.

Table 5. Values of B and Beta coefficients in the model accounting for variance in scores in the *SulQ*, *Business Involvement*, *Attitude*, and *Control*.

<i>Start-up intentions</i>				
Independent variable	B	Beta	t	P
sex	-.36	-.01	-.19	.852
age	-.60	-.02	-.36	.716
Agency	-.01	.02	-.03	.974
Pathways	1.06	.26	3.98	.000
<i>Business Involvement</i>				
Independent variable	B	Beta	t	P
sex	1.93	.12	2.20	.028
age	-.27	-.02	-.36	.718
Agency	.12	.06	.92	.359
Pathways	.39	.21	3.21	.001
<i>Attitude</i>				
Independent variable	B	Beta	t	P
sex	.24	.02	.31	.755
age	-.89	-.07	-1.34	.182
Agency	.01	.01	.09	.928
Pathways	.30	.19	2.79	.006
<i>Control</i>				
Independent variable	B	Beta	t	P
sex	.56	.04	.68	.497
age	1.47	.11	2.07	.039
Agency	.01	.00	.06	.951
Pathways	.27	.16	2.37	.018

Source: Authors' own investigation.

p. 58; Janasz, 2004, pp. 18–24), it seems that studying business behaviour is an important task for contemporary researchers. It is particularly vital to offer answers to the following questions: (1) ‘What variables determine particular business-related behaviours?’; and (2) ‘Why do these variables exert an influence on the undertaking of a given activity by an individual?’

A partial answer to the first question is provided by the theory of planned behaviour by Ajzen (1988, 1991). This theory, which has been verified and applied on multiple occasions (Ajzen, 1988, 1991; Armitage & Conner, 2001; Kaczmarek & Drażkowski, 2014; Mynarska, 2012), presumes that a cognitive variable – intention – underlies each instance of behaviour (not only business-related behaviours). Intentions, in turn, are a product of the interaction among attitudes toward behaviour, subjective norms, and perceived behavioural control.

Based on the assumptions of this model, we followed Ajzen in presuming that business-related behaviour (e.g. starting one's own company) may depend on business intentions (in this particular case, when we analyse behaviour consisting of setting up one's own business, start-up intentions are examined), whereas intention may depend on an array of different factors. Although Ajzen's (1991) theory presumed that factors such as attitude toward behaviour, subjective norms, and perceived control exert an influence on intention, the relevant literature has demonstrated that there are dependencies between intention and an array of variables (Chang, 2013; Chung & Yang, 2013; Erikson, 1999; Holienka et al., 2013; Liñán & Chen, 2009; Rasli et al., 2013; Zhang et al., 2015). However, as far as the ‘repertoire’ of predictors of intention is concerned, little attention has been paid to hope of success.

While considering Snyder's hope of success, we raise two issues: (1) first, there is a paltry number of publications that analyse the notion of the hope of success (including the

examination of the predictive value of hope of success for intentions) (Krawczyk-Bryłka, 2013; Łaguna et al., 2005; Porzak & Sagan, 2013; Stoeber & Rambow, 2007); and (2) second, in every study that we found and analysed, hope of success played a positive role in, for example, sport achievements (Curry et al., 1997), academic performance (Snyder et al., 2002) or striving for perfection (Stoeber & Rambow, 2007). On these grounds, we decided to verify the predictive value of Snyder's hope of success for start-up intentions (based on the theory of planned behaviour by Ajzen).

The results that we obtained confirm the earlier findings of Bernat et al. (2008), indicating that a high percentage of potential entrepreneurs can be found among Polish students. In our study, as many as 57% of the respondents planned to start their own business in the near future and simultaneously declared a high level of start-up intentions and hope of success in comparison to students who did not plan to start a business. Likewise, the positive correlations that we found between hope of success and start-up intentions may testify to the fact that people who are convinced of their own strong will, the quality of their skills, and their persistence in the problem-solving process are frequently certain that they would function well as entrepreneurs, which may in turn translate into the final decision to establish their own business. These results are in agreement with prior findings that demonstrated that hope of success determines the decision to start one's own business and constitutes a source of energy needed to run the business despite the difficulties that the owner might encounter in the market (Krawczyk-Bryłka, 2013). In the analysis of the correlations between hope of success and start-up intentions, it is worth noting the way the scores in the subscale *Pressure* 'behave' in our study. *Pressure* corresponds to Ajzen's notion of subjective norms. In our study, it did not correlate significantly with hope of success or with the scores in the subscale *Agency*. Ajzen's factor *Subjective Norms* is a weak predictor of intentions (Armitage & Conner, 2001). Hence, in the series of regression analyses that we performed, we decided to verify the predictive value of hope of success (and its components) separately for start-up intentions, *Involvement*, *Attitudes*, and *Control* without taking *Pressure* into account. We observed an interesting relationship between the component *Pathways* and all of the dependent variables under analysis. In addition (apart from the above-mentioned scores for *Pathways*), age and sex turned out to be predictors of *Control* and *Involvement*, respectively. Thus, men who are deeply convinced of the high quality of their problem-solving skills are simultaneously deeply convinced of their involvement in running a business, whereas older people who are deeply convinced of the high quality of their problem-solving skills firmly believe that they have control over a given situation (in this case, that they are capable of controlling a business).

The result concerning the predictive value of the scores in *Pathways* for start-up intentions is interesting because it indicates that people who are deeply convinced of their own persistence and solution-finding skills are simultaneously firmly convinced of the high quality of their competences and that they would be able to cope with running a business. This finding is very important, especially at a time of high unemployment. One may suppose that people who are deeply convinced of the effectiveness of their problem-solving skills would be more likely to set up their own businesses in case of unemployment. To put it more simply, if I believe that I can successfully cope with problems and a problem such as unemployment presents itself, I will be more likely to start my own company and see it as a good solution to a problematic situation. Thus, our results partially confirm those obtained by Hayek, which demonstrate that positive psychological capital moderates the

relationship between Ajzen's control over behaviour and the intention to undertake risky activity. The capital encompasses hope, optimism, resilience, and the sense of agency (Hayek, 2012; Krawczyk-Bryłka, 2013).

Given the results of the present study, it seems that hope of success (and, more precisely, its component *Pathways*) may serve an indirect role in the process of undertaking business activity (or, more narrowly, start-up activity) by means of its predictive value for start-up intentions.

6. Conclusions and recommendations

Given high unemployment rates and a large proportion of newly founded companies that fail (which may discourage potential entrepreneurs), it is important to continue to seek other factors that can modify the relationship between business intention and business behaviour. The results of this study, which reveal the predictive value of beliefs regarding one's problem-solving skills, should be considered by institutions (e.g. universities) or people who educate or train potential entrepreneurs. It appears that reinforcement of convictions concerning one's strong will, problem-solving skills, and persistence in this respect may positively influence and lift the entrepreneurial spirit, which may in turn increase the chances that a potential entrepreneur will decide to self-employ.

Taking into consideration the important role of hope of success demonstrated in the present study as well as in previous surveys and the small number of publications regarding this topic, it seems important to conduct research examining the predictive value of hope of success not only for start-up intentions but also for the effectiveness of running one's own business.

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